



Product Change Notification: MFOL-08LAOX415

Date:

15-Jun-2026

Product Category:

Switching Regulators

Notification Subject:

CCB 8336 Final Notice: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP16311T-E/MS, MCP16311-E/MS, MCP16312-E/MS, MCP16312T-E/MS, and MCP16312-E/MS-5 catalog part numbers (CPN) available in 8L MSOP (3x3mm) package at MTAI assembly site.

Affected CPNs:

[MFOL-08LAOX415_Affected_CPN_06152026.pdf](#)

[MFOL-08LAOX415_Affected_CPN_06152026.csv](#)

PCN Status: Final Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.

Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP16311T-E/MS, MCP16311-E/MS, MCP16312-E/MS, MCP16312T-E/MS, and MCP16312-E/MS-5 catalog part numbers (CPN) available in 8L MSOP (3x3mm) package at MTAI assembly site.

Pre and Post Summary Changes:

	Pre Change	Post Change	Change (Yes/No)
Assembly Site	Microchip Technology Thailand (HQ) (MTAI)	Microchip Technology Thailand (HQ) (MTAI)	No

Wire Material	Au	CuPdAu	Yes
Die Attach Material	8390A (PFAS-free)	8390A (PFAS-free)	No
Molding Compound Material	G600V	G600V	No
Lead-Frame Material	CDA194	CDA194	No
Lead-Frame DAP Surface Prep	Ag	Bare Cu	Yes

Impacts to Datasheet: None

Change Impact: None

Reason for Change: To improve productivity by qualifying palladium coated copper with gold flash (CuPdAu) as a new bond wire material at MTAI assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: 14 September 2026 (date code: 2638)

Note Below EFSD: Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Timetable Summary:

	June 2026					>	September 2026				
Work Week	23	24	25	26	27		36	37	38	39	40
Qual Report Availability			X								
Final PCN Issue Date			X								
Estimated Implementation Date									X		

Method to Identify Change: Traceability Code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History: June 15, 2026: Issued final notification.

Note: The change described in this PCN does not alter Microchip's current regulatory compliance

regarding the material content of the applicable product.

Attachments:

[PCN_MFOL-08LAOX415_Qual_Report.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

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Affected Catalog Part Numbers (CPN):

MCP16311T-E/MS

MCP16311-E/MS

MCP16312-E/MS

MCP16312T-E/MS

MCP16312-E/MS-5



QUALIFICATION REPORT SUMMARY
RELIABILITY LABORATORY

PCN #: MFOL-08LAOX415

Date:
June 08, 2026

Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP16311T-E/MS, MCP16311-E/MS, MCP16312-E/MS, MCP16312T-E/MS, and MCP16312-E/MS-5 catalog part numbers (CPN) available in 8L MSOP (3x3mm) package at MTAI assembly site. This is a qualification by similarity (QBS).



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PACKAGE QUALIFICATION REPORT

Purpose	Qualification of palladium coated copper with gold flash (CuPdAu) as a new bond wire material for MCP16311T-E/MS, MCP16311-E/MS, MCP16312-E/MS, MCP16312T-E/MS, and MCP16312-E/MS-5 catalog part numbers (CPN) available in 8L MSOP (3x3mm) package at MTAI assembly. This is a qualification by similarity (QBS).
CN	ES167136-24401
QUAL ID	Q18031 Rev. A
MP CODE	DFAW14A3XA00
Part No.	24LC01B-E/MS
Bonding No.	BDM-001621 Rev. A
CCB No.	3230 (Qual Date: June 11, 2018) and 8336
<u>Package</u>	
Type	8L MSOP
Package size	3x3 mm
<u>Lead Frame</u>	
Paddle size	82 x 94 mils
Material	CDA194
Surface	Bare Cu Paddle
Process	Stamped
Lead Lock	No
Part Number	10100839
Treatment	Roughened
<u>Material</u>	
Epoxy	8390A
Wire	CuPdAu wire
Mold Compound	G600V
Plating Composition	Matte Tin



Manufacturing Information:

Assembly Lot No.	Wafer Lot No.	Date Code
MTAI184503725.000	GRSM 418163911.E00	18053UC
MTAI184504109.000	GRSM 418163911.E00	18056P5
MTAI184504110.000	GRSM 418163911.E00	18056P9

Result: ☒ Pass ☐ Fail ☐ _____

8L MSOP assembled by MTAI pass reliability test per QCI-39000. This package was qualified the Moisture/Reflow Sensitivity Classification Level 1 at 260°C reflow temperature per IPC/JEDEC J-STD-020D standard.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS	Result	Remarks
Moisture/Reflow Sensitivity Classification Test (At MSL Level 1)	85°C/ 85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH 3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243 (IPC/JEDEC J-STD-020D)	IPC/JEDEC C J-STD- 020D	135	0/135	Pass	

<u>Precondition</u> <u>Prior Perform</u> <u>Reliability Tests</u> (At MSL Level 1)	Electrical Test :+25°C,85°C and 125°C System: NEXTEST_PT	JESD22- A113	693(0)	693		Good Devices
	Bake 150°C, 24 hrs System: CHINEE			693		
	85°C/85%RH Moisture Soak 168 hrs. System: TABAI ESPEC Model PR-3SPH			693		
	3x Convection-Reflow 265°C max System: Vitronics Soltec MR1243			693		
	Electrical Test :+25°C,85°C and 125°C System: NEXTEST_PT			0/693	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Temp Cycle	Stress Condition: -65°C to +150°C, 500 Cycles System : TABAI ESPEC TSA-70H Electrical Test: + 85°C and 125°C System: NEXTEST_PT Stress Condition: -65°C to +150°C, 1000 Cycles System: TABAI ESPEC TSA-70H Electrical Test: +85°C and 125°C System: NEXTEST_PT Bond Strength: Wire Pull (> 2.5 grams) Bond Shear (>15.00 grams)	JESD22-A104		231		Parts had been pre-conditioned at 260°C
			231(0)	0/231	Pass	77 units / lot
				231		
			231(0)	0/231	Pass	
			15 (0)	0/15	Pass	
			15 (0)	0/15	Pass	
UNBIASED-HAST	Stress Condition: +130°C/85%RH, 96 hrs. System: HAST 6000X Electrical Test: +25°C System: NEXTEST_PT Stress Condition: +130°C/85%RH, 192 hrs. System: HAST 6000X Electrical Test: + 25°C System NEXTEST_PT	JESD22-A118		231		Parts had been pre-conditioned at 260°C
			231(0)	0/231	Pass	77 units / lot
				231		
			231(0)	0/231	Pass	
HAST	Stress Condition: +130°C/85%RH, 96 hrs. Bias Volt: 5.0 Volts System: HAST 6000X Electrical Test: + 25°C ,85°C and 125°C System: NEXTEST_PT Stress Condition: +130°C/85%RH,192 hrs. Bias Volt: 5.0 Volts System: HAST 6000X Electrical Test: + 25°C ,85°C and 125°C System: NEXTEST_PT	JESD22-A110		231		Parts had been pre-conditioned at 260°C
			231(0)	0/231	Pass	77 units / lot
				231		
			231(0)	0/231	Pass	

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	Stress Condition: Bake 175°C, 504 hrs System: SHEL LAB Electrical Test : +25°C ,85°C and 125°C System: NEXTEST_PT	JESD22-A103	45(0)	45 0/45	Pass	45 units
Solderability Temp 215°C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping: Solder Temp.215°C Solder material: SnPb Sn63,Pb37 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22B-102E	22 (0)	22 22 0/22	Pass	
Solderability Temp 245°C	Steam Aging: Temp 93°C,8Hrs System: SAS-3000 Solder Dipping:Solder Temp.245°C Solder material:Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22B-102E	22 (0)	22 22 0/22	Pass	
Cross section	Cross section Inspection 5 units / lot		15(0) Wires	0/15	Pass	
Bond Strength Data Assembly	Wire Pull (> 2.5 grams) Bond Shear (>15.00 grams)	M2011 JESD22-B116	30 (0) Wires 30 (0) bonds	0/30 0/30	Pass Pass	



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CCB No. 7909 (Qual Date: May 04, 2026) and 8336

<u>Misc.</u>	Assembly site	MTAI
	BD Number	BD-003749B
	MP Code (MPC)	V7BB2JC2XVD1
	Part Number (CPN)	MCP2562FDT-H/SNVAO
	Assembly Shipping Media (T/R, Tube/Tray)	Tube, T/R
	Base Quantity Multiple (BQM)	3300
<u>Lead-Frame</u>	Paddle size	90x90 mils
	Material	CDA194
	DAP Surface Prep	Ag on one corner
	Treatment	Roughened
	Process	Stamped
	Lead-lock	Yes
	Part Number	10100844
	Lead Plating	Matte Tin
	Strip Density	320 units/strip
<u>Bond Wire</u>	Material	CuPdAu
<u>Die Attach</u>	Part Number	QMI519
	Conductive	Yes
<u>MC</u>	Part Number	G600V
<u>PKG</u>	PKG Type	SOIC
	Pin/Ball Count	8
	PKG width/size	150 mils



Manufacturing Information:

Assembly Lot ID
MTAI263501089.000
MTAI263501090.000
MTAI263501088.000

Conclusion:

Qualification of V7BB2 mask / MCP2562FDT-H/SNVAO product / 0.8 mil CuPdAu wire in 8L SOIC(150) (C2X) package at MTAI site is qualified for MSL1 at 260°C as per JEDEC J-STD-020 standard and is passed in accordance to Specified JEDEC and Mil Standards



Moisture Soak Precondition Prior to Stresses

Test Method	JESD22-A113, JEDEC J-STD-020		
Test Condition	MSL1: 150°C 24 hours Bake, 168 hours Moisture Soak at 85°C/85%RH, 3x Reflow at 260°C		
Required Sample Size	231 units each lot / 3 lots;		
Lot ID	R2600044-1 MTAI263501089.000	R2600044-2 MTAI263501090.000	R2600044-3 MTAI263501088.000
Electrical Results (Fail / Pass)	0/231	0/231	0/231
Electrical Test Tester: J750	25°C and 125°C		
Result	Passed		

High Temp Storage

Test Method	JESD22-A103		
Test Condition	175°C / 500 hours		
Required Sample Size	45 units each lot / 3 lots;		
Lot ID	R2600044-1 MTAI263501089.000	R2600044-2 MTAI263501090.000	R2600044-3 MTAI263501088.000
Electrical Results (Fail / Pass)	0/45	0/45	0/45
Electrical Test Tester: J750	25°C and 125°C		
Result	Passed		



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Temperature Cycling

Test Method	JESD22-A104		
Test Condition	-55°C / +150°C Air to Air / 1000 Cycles		
Required Sample Size	77 units each lot / 3 lots; WBP/WBS		
Lot ID	R2600044-1 MTAI263501089.000	R2600044-2 MTAI263501090.000	R2600044-3 MTAI263501088.000
Electrical Results (Fail / Pass)	0/77	0/77	0/77
WBP (Fail / Pass)	0/3	0/3	0/3
WBS (Fail / Pass)	0/3	0/3	0/3
Electrical Test Tester: J750	25°C and 125°C		
Result	Passed		

Biased HAST

Test Method	JESD22-A110		
Test Condition	+130°C / 85%RH / 96 hours / Bias Voltage: 5.5V		
Required Sample Size	77 units each lot / 3 lots;		
Lot ID	R2600044-1 MTAI263501089.000	R2600044-2 MTAI263501090.000	R2600044-3 MTAI263501088.000
Electrical Results (Fail / Pass)	0/77	0/77	0/77
Electrical Test Tester: J750	25°C and 125°C		
Result	Passed		



Unbiased HAST

Test Method	JESD22-A118		
Test Condition	+130°C / 85%RH / 96 hours		
Required Sample Size	77 units each lot / 3 lots;		
Lot ID	R2600044-1 MTAI263501089.000	R2600044-2 MTAI263501090.000	R2600044-3 MTAI263501088.000
Electrical Results (Fail / Pass)	0/77	0/77	0/77
Electrical Test Tester: J750	25°C		
Result	Passed		

Solderability (0 Hr) Method 1: Dip and Look

Test Method	J-STD-002 / JESD22B-102
Test Condition / Criteria	Pb-free 8 hours Steam age. Dip at 245°C, 100% leads >95% lead coverage
Required Sample Size	22 units / 1 lot
Visual Result (Fail / Pass)	0/22 - Passed

Physical Dimension (0Hr)

Test Method	JESD22 B100 and B108
Test Criteria	Within package diagram dimension
Required Sample Size	10 units each lot / 3 lots
Result (Fail / Pass)	0/30 - Passed



Wire Pull

Test Method	Mil. Std. 883-2011
Test Criteria	Bond Strength Data Assembly
Required Sample Size	5 units / 1 lot
Result (Fail / Pass)	0/5 - Passed

Bond Shear

Test Method	CDF-AEC-Q100-001
Test Criteria	Bond Strength Data Assembly
Required Sample Size	5 units / 1 lot
Result (Fail / Pass)	0/5 - Passed